

Patent

GR-27

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Heinz Boss

Serial No:

09/426,023

U.S. Filed:

10/25/1999

For:

APPARATUS FOR COLLECTING PRINTED PRODUCTS

Examiner:

Jeffrey A. Shapiro

Art Unit:

3651

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BOX: AF

AUG 1 9 2002

Assistant Commissioner for Patents

Washington, D.C. 20231

GROUP 3600

SUBMISSION OF BRIEF ON APPEAL

SIR:

Submitted herewith is a Brief On Appeal in triplicate in support of the appeal filed May 10, 2002.

A check in the amount of \$ 320.00 to cover the fee pursuant to 37 CFR §1.17 (f) is enclosed.

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Any additional fees or charges required at this time in connection with the application may be charged to Patent and Trademark Office Deposit Account No. 11-1835.

Respectfully submitted,

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Dated: August 9, 2002

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By:	a kal	Date:	August	9,	2002
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BRIEF ON APPEAL

SIR:

This Brief is submitted in support of the Appeal filed May 10, 2002 from the Examiner's Final Rejection of claims 1 - 3 as set forth in the Office Action mailed November 2, 2001.

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REAL PARTY IN INTEREST

The present application is owned by Grapha-Holding AG by virtue of an assignment recorded in the United States Patent and Trademark Office on October 25, 1999 under reel/frame 010350/0135.

RELATED APPEALS AND INTERFERENCES

There are no presently pending related appeals and interferences.

STATUS OF CLAIMS

Claims 1 - 10 are the claims in the application and are the claims on appeal.

STATUS OF AMENDMENTS

A Request for Reconsideration in Response to the Examiner's Final Rejection of claims 1 - 10 dated November 2, 2001 was submitted on May 2, 2002. In the Advisory Action mailed July 19, 2002, the Examiner indicated that the claims remain rejected.

SUMMARY OF THE INVENTION

The present invention is directed to an apparatus for collecting, stitching, and/or cutting printed products.

As illustrated in Figs. 1 and 2 of the drawing and described on pages 9 and 10 of the specification, the apparatus comprises an endless collector chain 1 and successively arranged feeders

33, 34; 38, 39 mounted above the collector chain for placing the printed products 8 on the collector chain 1. The apparatus further comprises a stitching device 12 for stitching the printed products 8 and a delivery unit 16 for removing the printed products 8 at a conveying end of the collector chain 1 and for supplying the printed products 8 for further processing. The apparatus further comprises a drive unit comprised of at least one servo drive 22 and a collector chain drive 19 connected to the collector chain 1 for controlling the servo drive 21 through a signal line 20 in a synchronously timed manner and for driving additional units 38, 39; 12; 26 of the apparatus.

As described in the paragraph bridging pages 12 and 13 of the specification, the servo drive 22 is configured to drive at least one of a stitching machine 12 and a trimmer 26 and at least one feeder 38, 39.

As described in the paragraph bridging pages 13 and 14 of the specification, additional servo drives 35, 36 are provided for individually driving the feeders 33, 34. As mentioned in the last three lines of page 9 of the specification, the collector chain drive 19 is a servo drive.

As mentioned in the paragraph bridging pages 11 and 12 of the specification, the collector chain drive 19 is configured as

As mentioned in the paragraph bridging pages 11 and 12 of the specification, the additional servo drives 22, 35, 36 are configured to follow the collector chain drive 19 synchronously with respect to rotation.

As mentioned in the first paragraph on page 15 of the specification, each feeder 33, 34 is configured to be operated individually relative to the collector chain 1.

As mentioned in the paragraph bridging pages 12 and 13 of the specification, electronic means are provided for adjusting the speed of the collector chain 1 to different chain divisions.

As mentioned in the paragraph bridging pages 12 and 13 of the specification, the servo drive 19 of the collector chain 1 comprises an overload function.

As mentioned in the first paragraph on page 15 of the specification, the time adjustment of the feeders 33 and 34 relative to the collector chain 1 is carried out electronically.

ISSUE PRESENTED FOR REVIEW

Whether claims 1 - 10 are unpatentable under 35 U.S.C. §102(b) as being anticipated by Harris and whether claim 4 is unpatentable under 35 U.S.C. 103(a) over Harris.

ARGUMENT

It is respectfully submitted that the Examiner's rejection of claims 1 - 10 under 35 U.S.C. §102(b) as being anticipated by Harris and of claim 4 under 35 U.S.C. §103(a) over Harris are in error because the reference does not in any way show several features of the present invention as claimed.

According to the examiner, the cited prior art Harris describes an apparatus for collecting, stitching and cutting printed products, wherein the apparatus comprises a collector chain (12), feeders (14a-d) arranged at the collector chain (12), a stitching device (30), a conveying device (32), and a drive unit (20) with a servo motor and a drive for the collector chain.

The examiner states that such a combination is well known in the art and makes reference to the incorporated US patent 4,768,766 with elements 50, 65, and 67, as described in column 6, lines 38-42.

This patent to Berger describes a system and a method for collecting and binding magazines and for printing addresses or a personalized message onto each magazine. The system comprises a main control data processor, a storage means for coded message and address data, and a reader. Bindery lines for collecting the printed sheets of the magazine and for printing a personalized message/address onto the magazines are provided. A line control data processor with an operator terminal having a display and a touch screen input is connected to the bindery lines and controls the selection and combination of printed sheets and the personalized text. A communication network connects the main control with each line control and transmits the information from the main control to the line controls.

The two prior art references to Harris and Berger relate to selective binding wherein the books/magazines to be produced are to be provided with different contents and different addresses by an ink jet printer. For this purpose, as described in Harris, a so-called collector chain is provided which is operated by means of a corresponding control device. The control device is comprised substantially of the line control 22 for the collector chain 12, the stitching apparatus 30, and the trimming device 34, on the one hand, and a bindery control 18 for the selectively activated feeders 14a-14d. Such a configuration has nothing to do with the subject matter of the present invention.

The present invention as claimed in claim 1 concerns a drive unit for a collecting and stitching apparatus, wherein the drive unit is comprised of at least one first servo drive and a collector chain drive, connected to the collector chain and configured to control the first servo drive through a signal line in a synchronously timed manner, wherein the first servo drive is configured to drive additional units of the apparatus.

Harris does not disclose a drive system in which the drive device has at least one servo drive which is controlled by the collector chain drive via a signal line (20) in a synchronously timed manner and which operates further members such as feeder, stitching mechanism, trimmer of the apparatus, as claimed in instant claim 1. A synchronously timed control of the servo device driving various devices of the apparatus by means of the collector chain drive is neither disclosed in Harris nor in U.S. 4,768,766; both prior art references refer to control systems for a selective binding process but not to a synchronously timed drive control between servo drive and collector chain drive.

The configuration according to the invention is illustrated in Fig. 1 of the present application as follows:

M2 (drive 19)

M1 (drive 22)

R2 (control 30) <- line 20 -> R1 (control 50)

As described in the instant specification, the drive 19 is the master and provides the control commands and the servo drive 22 the slave controlled by the master. This is a direct and immediate control of one motor by the other. Such a direct and immediate control between the chain motor and the servo motors for additional devices is not disclosed in the prior art.

Harris discloses a motor 20 for driving the chain 12 but does not show this chain motor to directly control a servo motor via a signal line in a synchronously timed manner. The signals of the chain drive 20 are fed via line 24 into a central processor 22 and not to a servo drive which operates further members such as feeder, stitching mechanism, trimmer of the apparatus. A direct synchronously timed control of the servo device driving various devices of the apparatus by means of the collector chain drive is neither disclosed in Harris nor in U.S. 4,768,766 which the examiner makes reference to as being exemplary of such a control.

U.S. 4,768,766 describes a system for collecting and binding magazines and for printing addresses or a personalized message onto each magazine. The system comprises a main control data processor, means for storing coded messages and address data, and a reader. Binding lines for collecting the printed sheets of the magazine and for printing a personalized message/address onto the magazines are provided. A line control data processor is connected to the bindery lines and controls the selection and combination of printed sheets and the personalized text. A communication network connects the main control with each line control and transmits the information from the main control to the line controls. There is no direct control of a servo motor driving additional devices by means of the collector chain motor.

To demonstrate the difference in the type of control performed by the prior art reference U.S. 4,768,766 and the present invention, Applicant submitted with the Request for Reconsideration a sketch based on Fig. 4 of U.S. 4,768,766 illustrating in red ink how the inventive control would be arranged and connected in contrast to the one disclosed in U.S. 4,768,766. Clearly, the arrangement of the present invention is quite different from the one disclosed in the prior art.

The same difference in regard to the connection schematic would also apply to Harris, i.e., the arrangement illustrated in red ink comprised of a signal line (20) connecting the controls (R1, R2) of the two motors (M1, M2) to one another with the servo motor (M1) in driving connection with the additional devices is not shown.

The examiner furthermore points to Chang (U.S. 5,777,443) as disclosing an arrangement as claimed in the present invention. This reference relates to controlling two binding lines independently from one another or synchronously with one another, as needed. An important difference to the present invention is that the collector chains 145, 146 and the additional units (57) associated with each collector chain are mechanically connected with one another - this eliminates the need for controlling additional units synchronously with the collector chain because the additional units are mechanically coupled and therefore driven synchronously.

In view of the foregoing, it is submitted that claims 1 - 3 are allowable over the reference relied on by the Examiner and the Board is respectfully requested to reverse the decision of the Examiner.

Respectfully submitted,

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Dated: August 9, 2002

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By: Date: August 9, 2002

APPENDIX

CLAIMS ON APPEAL

- 1. An apparatus for collecting, stitching and/or cutting printed products, the apparatus comprising an endless collector chain and successively arranged feeders mounted above the collector chain for placing the printed products on the collector chain, a stitching device for stitching the printed products, and a delivery unit for removing the printed products at a conveying end of the collector chain and for supplying the printed products for further processing, the apparatus further comprising a drive unit comprised of at least one servo drive and a collector chain drive connected to the collector chain for controlling the servo drive through a signal line in a synchronously timed manner and for driving additional units of the apparatus.
- 2. The apparatus according to claim 1, wherein the servo drive is configured to drive at least one of a stitching machine and a trimmer and at least one feeder.
- 3. The apparatus according to claim 1, comprising additional servo drives for individually driving the feeders.
 - 4. The apparatus according to claim 1, wherein the

collector chain drive is a servo drive.

- 5. The apparatus according to claim 3, wherein the collector chain drive is configured as master and the servo drive and the additional servo drives are each configured as slave.
- 6. The apparatus according to claim 3, wherein the additional servo drives are configured to follow the collector chain drive configured as a servo drive synchronously with respect to rotation.
- 7. The apparatus according to claim 1, wherein each feeder is configured to be operated individually relative to the collector chain.
- 8. The apparatus according to claim 7, comprising electronic means for adjusting a speed of the collector chain to different chain divisions.
- 9. The apparatus according to claim 4, wherein the servo drive of the collector chain comprises an overload function.
- 10. The apparatus according to claim 1, comprising electronic means for carrying out the time adjustment of the feeders relative to the collector chain.